



United States Agency for International Development

FOOD AID IN GHANA An Elusive Road to Self-Reliance

Over a span of more than three decades, the United States has given large amounts of food aid to Ghana. In recent years, the assistance has helped reform the African nation's economic policy, but Ghana still suffers from food insecurity.

SUMMARY

For more than 30 years, the United States has been providing food aid to Ghana for a wide variety of purposes: feeding destitute people, improving nutrition of mothers and children, supporting policy reform, providing budget support, and contributing to an array of specific project-level economic development objectives. From 1965 through 1994, Ghana received nearly \$340 million in food aid from the United States under Public Law 480. Food aid made up a significant portion of overall U.S. assistance to Ghana, accounting for 42 percent of all nonmilitary assistance over this period. The United States has been Ghana's largest single source of food aid, contributing more than 50 percent of the total. But in absolute terms, food aid makes up only a small share of total food consumption—less than 0.5 percent.

In September 1996 a four-member team from USAID's Center for Development Information and Evaluation (CDIE) traveled to Ghana to assess how U.S. food aid contributed to sustainable development. They explored two central questions:

Team leader: Joseph Lieberman
Team members: Barry Riley, Michael Pillsbury,
Thomas Cook.

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1) Has food aid attenuated the conditions that made it necessary in the first place? And 2) has food aid supported food security and sustainable development? This Impact Evaluation summarizes the team's conclusions.*

Since the mid-1980s, the evaluators note, Ghana has been recovering from a severe economic decline that spanned the preceding two decades. Owing mainly to economic mismanagement, per capita gross domestic product (GDP) declined from a peak of \$540 in 1974 to a low of \$350 in 1984 (as measured in constant 1990 prices). At that point Ghana launched a comprehensive and successful economic reform program that received strong donor support. The economy grew strongly over the next 10 years, and per capita GDP had recovered by 1993 to \$411.

During the last dozen years or so the lever of food aid has won USAID a place at the table, making the Agency a major player in policy reform. Food aid, in concert with other programs making up an overall package, played an essential role in U.S. support for measures such as privatizing government agricultural marketing, eliminating the fertilizer subsidy, and encouraging nontraditional agricultural exports.

Since 1983, Ghana has demonstrated how substantial amounts of Title I food aid (government-to-government concessional sales) and Title III food aid (grants tied to development) can be used to support economic reforms. Because of the reforms, Ghana's GDP increased at an average rate of 5 percent a year from 1983 through 1993, one of the longest and highest growth rates in all of Africa. The share of the population living in poverty fell from 37 percent in 1988 to 31 percent in 1992. Nontraditional agricultural exports, which help

primarily the rural poor, increased from \$2 million in 1984 to \$160 million in 1995.

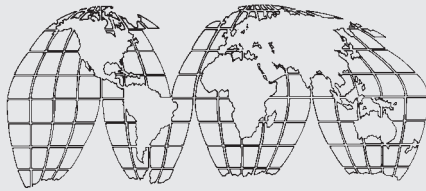
Although PL 480 should be given high marks for helping to support successful policy reforms since 1983, the same cannot be said for earlier periods. From 1966 through 1972 Ghana launched a series of economic reforms. A large amount of PL 480 assistance was provided, but in the end the reforms failed. A political coup stopped them before they could take hold. Reforms planned for 1979–83 were doomed, the victim of broken government promises.

In each period, food aid was part of a much larger U.S. policy reform assistance package, which in turn was part of a much larger multidonor package. The whole package worked or the whole package failed. While the reforms since 1983 have been successful, an important remaining issue is whether Ghanaian food security has improved. ("Food security" refers to ready access by all people at all times to sufficient food and nutrition.)

Average daily calorie intake has improved in recent years but is still close to its historical average of approximately 2,100 calories a day—only 90 percent of what is deemed adequate. Malnutrition is a continuing and severe problem for the 31 percent of the population living below the poverty line.

In Ghana, economic resources and access to services are not equally available to all citizens. The rural poor in the northern half of the country are as poor as any in Africa. And there is disquieting evidence that the urban poor, even in the largest cities of the south, are becoming poorer. PL 480 Title II (grant food aid) feeding programs aimed at those most at risk (pregnant and lactating mothers, malnourished infants and children, and those in drought regions) has clearly achieved results. Each year, Title II fed hungry people—more than 200,000 of them—fulfilling the pro-

* CDIE working paper No. 225, PN-ABY-240 provides additional technical information and background data.



“THE UNDERLYING ... FACTORS THAT CAUSED FOOD INSECURITY STILL EXIST. THEY INCLUDE A HIGH POPULATION GROWTH RATE, LOW GROWTH IN AGRICULTURAL PRODUCTIVITY, LOW PER CAPITA INCOME, AND A SIGNIFICANT PROPORTION OF THE POPULATION LIVING IN POVERTY.”

gram’s specified goal. Notwithstanding, a large part of the population still suffers from malnutrition, a problem in which Ghana still ranks near the bottom among sub-Saharan countries. There were also Title II and III projects to address specific food and development problems. They included food-for-work projects and projects in which food was sold to generate local currency to fund development projects.

The evaluation analyzed a broad range of such projects and found they were effective. Those suffering from malnutrition were fed, schools and roads were built, village-based micro-enterprises were developed, and new economic opportunities were created. But only a small percent of the population in need were served. The vast majority (more than 95 percent) have never been reached by these projects. Moreover, the underlying economic, political, social, and environmental factors that caused food insecurity still exist. Those factors include a high population growth rate, low growth in agricultural productivity, low per capita income, and a significant proportion of the population living in extreme poverty.

BACKGROUND

A country of over 17 million people, Ghana is often cited as one of sub-Saharan Africa’s success stories. It has combined effective structural adjustment and economic liberalization along with strong economic growth. Its gross domestic product (GDP) growth rate of nearly 5 percent a year over 10 years (1983 to 1993) is one of the highest in Africa.

Questions arise, though, whether Ghana’s growth is sustainable and whether the benefits of growth have been evenly spread throughout the population. Moreover, factors such as environmental degradation, natural resource depletion (especially timber), declining agricultural productivity, low private savings, low investment rates, and a high population growth rate (3.1 percent) place daunting obstacles in the path of Ghana’s continued economic growth.

Lagging Growth Rates

A major problem is an agricultural growth rate that for the last 15 years has lagged well behind population growth. It is true that the incidence of poverty fell from 37 percent to 31 percent during 1988–92. But an under-5 mortality rate of 131 per 1,000 live births, a life expectancy of 56 years, and per capita gross domestic product of \$411 make Ghana still among the poorest of sub-Saharan African countries.

Nutrition indicators also call into question whether Ghana’s economic recovery has reached the neediest. At about 2,100 per day, the caloric intake for the typical Ghanaian has changed little over the past 25 years. (Twenty-two hundred calories a day is the minimum adequate for only light physical activity.) Cereal and root consumption account for more than 66 percent of the average person’s calories; food of animal origin makes up less than 6 percent.

In children's nutritional status, Ghana ranks in the bottom fifth of the world's countries. According to the Ministry of Health, 28 percent of children under 3 are underweight (low weight for age), 31 percent are stunted (low height for age), and 12 percent are wasted (low weight for height). Prevalence of such malnutrition is higher in the northern and forest zones than in the south or greater Accra.

Per capita GDP has not yet reached the level it was at 30 years ago (see figure 1). Ghana's manufacturing sector is small. Even the country's manufacturing centerpiece, the Volta River project (in which electricity from the mammoth Akosombo Dam is used to smelt bauxite) operates far below capacity.

Concern is also rising about rapidly diminishing forests, which used to cover 34 percent of the country. Now only one quarter of that is left, with half of *that* consisting of tree planta-

tions or scrub too young to harvest. The extractive industries of gold, diamonds, and manganese have driven Ghana's economic growth during the 1990s.

Agriculture is by far Ghana's most important productive sector (see table 1). It employs directly or indirectly nearly 80 percent of the population, accounts for half of GDP, and brings in half the country's export earnings.

Yams, cocoyams, cassava, grains (including maize, millet, rice, and sorghum), and plantains form the base of food-crop production. The main agricultural exports are cocoa, oil palm, fish products, pineapples, and kola nuts. Cocoa alone accounts for 31 percent of exports. But whereas Ghana was once the world's largest producer, by the early 1980s it had become an insignificant source. Its relatively old and poorly maintained cocoa trees were producing only 300 kilograms per hectare, compared with production in Southesast Asia of more than 1,000 kilos per hectare.

Cocoa production began to rise in the 1990s, owing to increased spending on extension and the introduction of newer disease- and drought-resistant trees. Gains in Ghana's total food production generally can be attributed to cropland expansion rather than increasing yields. Maize is the exception. Its yields have increased because new, improved varieties were introduced. Moreover, irrigation and fertilizer use, as in much of sub-Saharan Africa, are lower than in any other region in the world. Total area under irrigation in 1990 was a mere 7,500 hectares (29 square miles), or 0.002 percent of area under cultivation. Fertilizer use has declined since the late 1980s.

Figure 1. GDP Per Capita

The portion of the national budget spent on food-crop agriculture has fallen substantially—from 10 percent in 1983 to just over 3 percent in 1988. In 1991 the government responded to criticisms that food crops were being ignored under ongoing economic reforms. It set a goal of food self-sufficiency by the year 2000 and increased the amount of money targeted for food-crop production.

The U.S. Food Aid Program in Ghana

Ghana received nearly \$340 million in PL 480 assistance from the United States from 1965 through 1994, making it the sixth largest recipient of PL 480 in sub-Saharan Africa and the second largest non-war-torn recipient, behind Zaire. Food aid was a significant portion of the overall U.S. development assistance package to Ghana, accounting for 42 percent of all non-military assistance over this 30-year period.

The United States has been Ghana's largest source of food aid, contributing more than 50 percent of all such aid during the past 20 years. Other major donors are the World Food Program, Canada, the European Union, and Japan.

The United States has provided food aid through three "Titles," or programs, authorized by the PL 480 legislation. Title I programs provide for government-to-government concessional sales of agricultural commodities. That is, the United States provides commodities to the host government for it to resell in-country for local currency. Title I was provided to the Ghanaian government as a loan, on highly concessional terms.

Title I was used from 1966 through 1987. It provided balance-of-payments support, promoted policy change, and directed local-currency counterpart funds to support major development activities. For Ghana, Title I resources ac-

counted for 40 percent of PL 480 commitments from 1956 through 1994.

Title II is used in direct feeding programs such as maternal and child health, food for work, and school feeding. It is also used to support food production, marketing, processing, storage, and health activities. Money or commodities are channeled through nongovernmental organizations (NGOs) that work at the grass-roots level to promote food security. Title II programs have been active every year since 1956 and have constituted 50 percent of all food-aid resources.

Title III programs were redesigned by a 1990 change in U.S. legislation to fund food security activities in the world's poorest nations. Title

**Table 1. Key Indicators,
Ghana, 1993**

Indicators	Percent of GDP
Agriculture sector	50.0
Industrial sector	16.0
Private investment	4.0
Government investment	10.0
Consumption	101.0
National savings	0.2
Foreign financing	9.0
Indicators	Percent or Ratio
Population (annual growth rate)	3.1
School enrollment ratio	
primary	71.0
secondary	39.0
Inflation rate	
1993	25.0
1995	71.0
1996 (estimated)	70.0
<i>Source: World Bank, Ghana Country Appraisal Report, 1995.</i>	

III programs were active in Ghana from 1991 through 1994. They made up the remaining 10 percent of total PL 480 resources.

Title I

The history of Title I programs in Ghana parallels major political changes within the country. Title I resources have been used to support governments that implemented sound economic policies and pursued free-market reforms. The aid has been withheld from regimes that disregarded such policies.

At independence from Britain in 1957, Ghana launched a development program that relied on government control and direction of prices, marketing, and trade. The program gave a major role to state-run enterprises and instituted a number of large government investment projects.

No Title I agreements were negotiated during the regime of Prime Minister (1957–60), then President-for-Life (1960–66) Kwame Nkrumah. The United States had little interest in supporting Nkrumah's state-controlled industrialization, agricultural marketing boards, or overambitious social-welfare programs.

In addition, Nkrumah's anti-Western rhetoric and his cofounding of the Nonaligned Movement (a grouping of countries that attempted to pursue policies independent of East and West) deterred the United States from providing anything other than humanitarian food assistance.

At independence Ghana had half a billion dollars in foreign exchange reserves; by 1966 the country was a billion dollars in debt, the economy had collapsed, and the country was experiencing food shortages for the first time ever. Nkrumah's economic policies were a disaster. Nkrumah fell from power in 1966. For the next seven years the United States supported the new government's attempt to carry out market-based

economic reforms by providing more than \$62 million in Title I commodities. The reforms (including currency devaluations, incentives for foreign investment, and new user fees on social services) won approval from donors but not from politically powerful groups that had grown accustomed to state subsidies. Their opposition toppled the government.

From 1972 to 1979, while Gen. Ignatius K. Acheampong led the country, the United States withheld Title I resources in response to the new government's repressive economic policies. These included an inappropriate currency revaluation, reestablishment of state control over industries, a fallback to undemocratic processes, and failure to recognize its external debt obligations. Once a debt settlement was reached and the government of Acheampong had fallen, Title I food aid resumed.

In 1979 an air force officer, Flight Lt. Jerry Rawlings, came to power. The first years of his presidency were filled with instances of broken promises on economic reforms. By 1983, Ghana's economy had hit rock bottom. The outlook was so bleak that USAID planned to phase out operations.

Fanning the flames, Ghana established diplomatic relations with the rogue state of Libya. But Ghanaian officials came to realize that friendly nations such as Libya would not bail the country out. The economic crisis called for monetary assistance from institutions with more resources. Ghana reached agreement with the World Bank and the International Monetary Fund on a 1983 Economic Recovery Program, a plan for sweeping reforms.

In accordance with the plan, the government pledged to

- Rein in the budget deficit
- Liberalize the economy by privatizing parastatals; lowering or eliminating tariffs,

barriers, and subsidies; and removing price controls from most commodities

- Reducing the size of the civil service
- Reducing heavily subsidized social support services such as free health care
- Allowing the national currency, the cedi, to float on international currency markets

The United States supported the reforms with almost \$75 million in Title I resources during the mid to late 1980s. From 1967 through 1973, industrial commodities—cotton (including raw cotton, yarn, and fabric), tallow, and tobacco—made up nearly 40 percent of Title I resources.

These commodities were used to encourage industrial development. When Title I assistance resumed in the 1980s, food grains were the major commodities: wheat (43 percent), rice (19 percent), and maize (8 percent). Local currency counterpart from the sale of this food was used in projects designed to mitigate the adverse effects of structural adjustment along with development projects in agriculture, health, and education.

Title II

Title II activities in large part deal with feeding programs and selected aspects of food insecurity: agroforestry; maternal and child health; nutritional education and food supplements; support for girls' primary education; and food production, processing, and storage.

Title II programs have been implemented by four U.S.-based organizations: Church World Services, Catholic Relief Services, Adventist Development and Relief Agency, and TechnoServe. Much of Title II food aid before 1990 was used in direct feeding programs such as maternal and child health, food for work, and

school feeding. Since 1990, most of the Title II food aid has been wheat, which has been "monetized." Under monetization, the wheat is sold to private sector Ghanaian grain millers and local currency is generated to support the NGO food security programs that do not require direct feeding.

The earliest Title II programs addressed emergency feeding, school feeding, and dispensing of rations at health centers to encourage mothers to bring their children in for vaccinations, weighing, measuring, and nutrition information.

The maternal and child health program was a mainstay of Catholic Relief Services until the late 1980s. This program and others like it have been credited with institutionalizing the use of child growth monitoring charts throughout Ghana.

Under pressure from USAID to direct its activities to the poorest regions of Ghana, Catholic Relief Services in 1989 moved away from maternal and child health and began centering more on school feeding programs. Specifically, the organization began using food as an incentive for families to keep their girls in school.

The rationale was as follows: education increases women's opportunities for increased

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income generation throughout their lives; educated women provide better health care to their children; and educated farmers (women as well as men) produce more crops than do uneducated farmers.

In 1983–84, food shortages arose from an unexpected combination of poor harvests, widespread brush fires, and the return of two million Ghanaians who were expelled from Nigeria because of decreasing employment in the oil industry. The Adventist Development and Relief Agency began emergency feeding programs in response to this crisis. Thereafter, that agency used Title II resources for well construction, community latrines, and food-for-work programs for school construction and rehabilitation.

The Adventist group's largest initiative has been its work in agroforestry jointly with the government of Ghana and the U.S. Peace Corps. It has used monetized food aid to support creation of community wood lots in Northern and Brong-Ahafo provinces.

TechnoServe has maintained a presence in Ghana since 1971. It began to use monetized Title II resources in 1992 to help capitalize its newly created Community Enterprise Development and Investment Trust Fund. The fund strengthens rural agricultural enterprises through training and technical assistance at its palm oil mills and grain credit programs.

Title III

Title III differs from Title I in that USAID is much more involved with specific project selection and funding. From 1991 through 1994, \$38 million in Title III–monetized wheat funded three main activities: export-promoting infrastructure (mainly feeder ads), export-promoting NGOs, and development of indigenous capability to undertake economic policy analysis.

Under the feeder roads project, the government's Department of Feeder Roads used nearly \$21 million equivalent (generated from Title III sales) to rehabilitate 718 miles of rural roads. Transport is a major impediment to agricultural marketing within Ghana; it accounts for an estimated 65 percent of the difference between farm-gate and retail prices. Although Ghana possesses 20,000 miles of roads, of which 3,700 miles are paved, many rural towns are still difficult or impossible to reach by motorized vehicle. Feeder roads bring such "landlocked" villages into the economy.

ECONOMIC IMPACT OF FOOD AID

Food aid to Ghana had four economic impacts: 1) it provided leverage for USAID to encourage the government to reform economic policies, 2) it provided the economy with additional imported resources, 3) it provided additional budgetary resources for development, and 4) conversely, it created various disincentives.

Policy Reform

Since 1983 the total policy reform effort has succeeded, and food aid has been part of the aid package that supported that success. From 1965 through 1982, food aid was scarcely linked to policy reform. By 1983, though, Ghana's economy was in such serious trouble that the World Bank, USAID, and other donors insisted on major structural reforms as a condition for their support.

The USAID program included a major policy reform component supported by cash transfers from the Agricultural Productivity Promotion project and by PL 480 Titles I and III. PL 480 reforms included privatizing government marketing and agricultural parastatals, eliminating the fertilizer subsidy, and adopting measures designed to spur nontraditional exports.

Results have been impressive; nontraditional exports increased from \$2 million in 1984 to \$160 million in 1995. They now represent 15 percent of export earnings.

It is always difficult to demonstrate a direct, causal linkage between program aid and economic change. At the national level, the best measure of whether a policy-based assistance program works is whether the policies are adopted and then what effect the new policies have on the specific areas targeted and the overall performance of the economy.

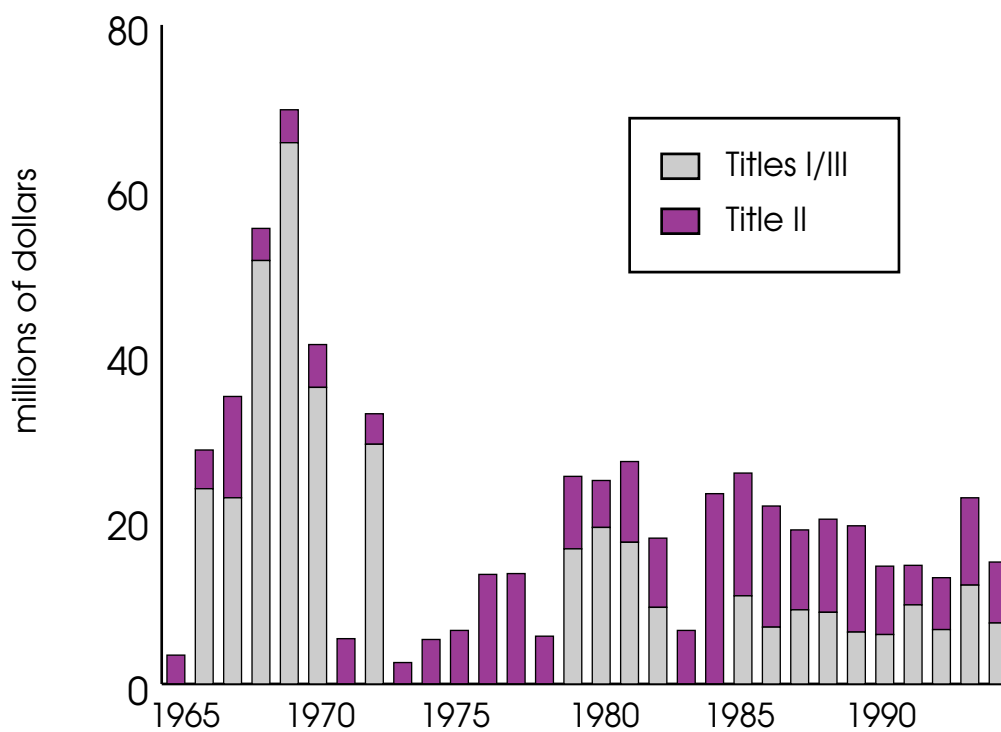
As figure 1 (on page 5) shows, in the period before reform (from 1974 to 1984), per capita GDP had fallen 35 percent. With large donor aid inflows and major policy reforms, per capita GDP then increased 20 percent over the next nine years.

U.S. food aid was important to the policy-reform effort and to the turnaround in economic growth. Food aid was part of a larger U.S. policy package that in turn was part of a much larger multidonor effort. It's the total package that was important in promoting economic reform, and food aid was an important part of the total package.

Resource Transfer

Food aid provided to Ghana was relatively large and concentrated in short periods of time. From 1959 through 1994, PL 480 assistance added 2 to 3 percent to Ghana's foreign exchange earnings—a relatively small amount. But averages can be deceptive. As figure 2 shows, assistance, particularly Title I and Title III, was concentrated in a few time periods.

Figure 2. Total PL 480 Food Aid To Ghana, 1965–94



Figures are in constant 1990 dollars.

Source: USAID: U.S. Overseas Loans and Grants.

In 1966, after the overthrow of Kwame Nkrumah and the promised switch to a market-based, private sector approach to development, large amounts of PL 480 Title I assistance were provided. From 1966 to 1970 it averaged 5 percent of export earnings.

There was a similar U.S. response to reforms promised in 1979–82 and to the Economic Recovery Program reforms, put into effect in 1984. During 1979–82, PL 480 rose to nearly 10 percent of export earnings, a very substantial amount.

In each case the United States reacted to political and economic changes by providing a substantial economic assistance package. At 42 percent of the total package, PL 480 assistance was a major portion.

The three periods shared similarities. During each, the economy was in crisis, imports were scarce, food availability was problematic, and the new reform-minded government was hesitant to address problems such as price controls, subsidies, inefficient state-owned enterprises, and a bloated civil service. Quick-disbursing PL 480 was a critical input, feeding hungry people and supporting policy reform.

In both 1966–70 and 1979–82 the reform momentum failed. Political and military elements, those that had the most to lose from restructuring, gained the upper hand and stopped or reversed earlier reforms. By contrast, the reforms of 1984 have been going strong for more than 10 years and are a clear success.

When a government can make and then stick with the tough political and economic decisions, reform succeeds. PL 480 is an important input but, as demonstrated in two of the three time periods in Ghana, even in large amounts it cannot ensure success.

Budgetary Effects

Local currency counterpart funds from Title I supported the government's public investment program in agriculture, education, and health. In addition, money was allocated to meet some of the social costs of structural adjustment in the mid to late 1980s. USAID approved allocations to individual projects and budget line items. Many of the projects had major effects. Examples:

- The guineaworm eradication program saw a 90 percent drop in new cases over the five years of U.S. support.

- Operations of the family-planning program received a major boost in the mid-1980s that helped establish the program in Ghana.
- The Expanded Program for Immunization helped bring immunization services to most children.
- Rehabilitation of schools and health clinics improved social service delivery.

Similar results were achieved with roads, agriculture, appropriate technology, and small-scale industry.

Although all agree that the types of projects supported were important for development, in most cases USAID was providing budget support, not directing programs or projects. Thus it is not clear how strong a developmental effect there actually was during the period of U.S. support. Nor is it known whether the projects were additional to what the government would have done in the absence of USAID support.

Disincentive Effects

When food aid is provided as a targeted grant to those who are hungry and lack the money to buy additional food, it tends to increase food consumption without harming domestic food production. This was generally the case in Ghana with Title II emergency relief, school feeding, and food distributed at maternal and child health centers. Since these groups lacked the income to buy additional food, Title II food aid did not substitute for normal market purchases and did not harm domestic production. The question is quite different when U.S. food aid is sold in the marketplace. It competes with local food products and can have several disincentive effects:

- *Price.* Food aid may hurt farmers by driving domestic prices down.

- *Production.* Food aid may replace food that would have been produced by Ghanaian farmers.
- *Import dependency.* Consumers may develop a taste preference for imported commodities and switch away from locally produced food.
- *Policy.* The availability of food aid may encourage the recipient country to neglect agricultural policy and fail to develop domestic agriculture.

Two recent studies commissioned by USAID/Ghana examined the disincentive effects of food aid in Ghana. With regard to price, production, import dependency, and policy, the studies suggest the following:

Price. Wheat and rice demand is highly elastic, or sensitive to price change: a 10 percent decrease in price generates a 12 percent increase in demand. By contrast, domestically grown staples such as maize and tubers are price-inelastic: a 10 percent decrease in maize prices generates only an 8 percent increase in maize consumption; for tubers, a 10 percent price decrease generates only a 5 percent increase in

consumption. In summary, *Ghanaian demand for rice and wheat is very responsive to changes in prices, while demand for other crops is not.*

Production. Rice imports have a modest effect on domestic production. One of the studies found that a 10 percent increase in the rice supply depressed the domestic price by 2.8 percent and reduced domestic rice production by 7.5 percent. Wheat tells a different story. Since wheat is not grown in Ghana, and because wheat does not substitute for maize and tubers, *wheat imports have almost no effect on those domestic crops.*

Import dependency. Wheat and rice, the major components of U.S. food aid to Ghana, tend to end up on the plates of the better-off, mainly in the cities. (Of course, given Ghana's per capita gross domestic product of only about \$450, "better off" is highly relative.) And as income grows, so does the demand for these commodities.

When income increases 10 percent, rice and wheat consumption increase 10 percent. By contrast, maize and tubers are highly income-inelastic. A 10 percent increase in income generates only a 2 percent increase in demand for

The Case of the Unwanted Oil

In 1988–89 the United States wanted to move excess stocks of vegetable oil. It told Ghana vegetable oil would be provided under the next Title I agreement.

Ghana meets most of its needs from domestic palm oil production and the rest from imports (which are cheaper than U.S. vegetable oil). Not wanting to offend the United States, just before a meeting of aid donors in

Paris, the Ghanaian government agreed to accept the oil.

After having difficulty moving the higher priced U.S. product (and taking heat from domestic producers) the government asked the United States, discreetly, not to provide any more vegetable oil. The United States agreed, and no more inappropriate commodities were shipped to Ghana.

maize and a 1 percent increase in demand for tubers. Moreover, many consumers would rather fight than switch. A survey of those consuming wheat found that less than 1 percent would be willing to give up their wheat for locally produced foods. Even though Ghana has always imported some wheat commercially, *the present level of wheat imports would be difficult to sustain in the absence of food aid.*

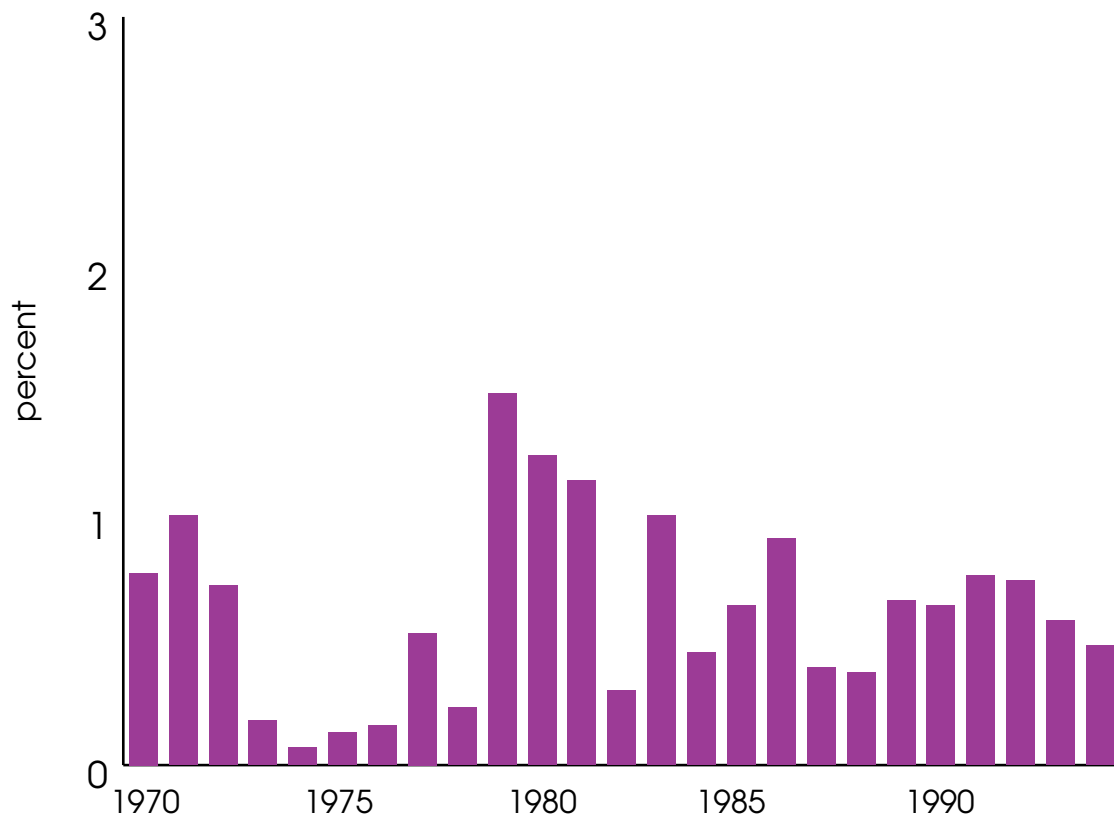
The case of rice is similar. Domestic rice production now covers less than half of domestic consumption. The rest is imported. Rice is grown in the north but largely consumed in the higher income and more populous central and southern regions. High marketing and transport costs make it difficult to ship rice to the

capital, Accra, at a profit. Though road improvements are lowering transport costs, *Ghana would have difficulty producing and shipping enough rice to satisfy anywhere near the current demand.*

In the case of wheat, in particular, food aid has allowed domestic tastes and preferences to shift away from locally produced food commodities. The magnitudes, of course, are small. PL 480 food aid constituted roughly half a percent of total domestic consumption of cereals and starchy staples in the years 1970–94 (see figure 3).

Although the disincentive effect on local production is extremely limited, demand has been created for this imported grain. Absent food aid,

Figure 3. PL 480 as a Percent Of Ghana's Top Eight Food Crops



Crops: cassava, plantain, cocoyam, yam, sorghum, millet, maize, rice.

Source: U.S. Department of Agriculture.

the government of Ghana would have to make a painful reallocation of its scarce foreign exchange to import wheat and rice.

Policy. In the last 10 years Ghana has made remarkable progress in economic and trade reform, but results are not as dramatic for agriculture. Nontraditional agricultural exports are rising rapidly, but agricultural productivity in traditional exports and food crops has lagged.

Ghana's agricultural growth rate of 2.7 percent in the 1980s has consistently fallen short of the population growth rate of 3.1 percent. Since 1990 the agricultural growth rate has fallen to 2.5 percent.

The World Bank projects the country's food deficit to increase from 128,000 metric tons (about 6 percent of demand) in 1987 to 780,000 metric tons (about 18 percent of demand) by the year 2000.

No negative linkage between policy formation and food aid is apparent. However, *major problems remain requiring efforts to increase yields, improve access to agricultural inputs, and improve agricultural product marketing and transportation.*

FOOD AID AND FOOD SECURITY

If food aid is to have a developmental impact, it must help remove or at least reduce the causes that gave rise to its need in the first place. Food aid, together with policy reform and other activities (of donors and the government) not only helps feed people but also can be used to increase local capacities to address the causes of malnutrition.

The ultimate goal of foreign food aid is to end such aid and establish national food self-reliance. Given that goal, there is a need to examine the results of food aid to Ghana after 30

years in light of 1) the national nutrition problem, 2) what has been done at the national level with program food aid, 3) what has been done with projectized program food aid (Title III), and 4) the results of targeted nutritional feeding programs.

The National Nutrition Problem

For both the rural and urban poor, the ability to secure adequate and appropriate foodstuffs throughout the year has not improved over the last 30 years. Average daily caloric intake has varied from year to year but has averaged close to 2,100 calories (see figure 4). That is about 90 percent of what is deemed adequate.

The lack of improvement in food consumption over 30 years mirrors the fact that per capita GDP and per capita food crop production are below the levels achieved 20 or 30 years ago.

Without an increase in income, people cannot afford an adequate diet. It is particularly severe for those living in poverty. One third of all Ghanaians exist below the poverty line of \$163 per year and half of those exist below the absolute poverty line of \$82 per year—a level of life-threatening deprivation.

Even if the strong economic recovery since 1983 continues at the same rate into the future, the World Food Program estimates that the poorest of the poor in Ghana will not rise above the poverty line for another 50 years.

Effects of Program Food Aid

For the most part, program food aid (PL 480 Title I and Title III) has been provided intermittently in an on-again-off-again fashion and has been associated with support for particular political and economic reform efforts or policy changes.

By and large, U.S. program food aid has not been designed to directly affect the social sectors of health, nutrition, and education. Nor has it been designed to reach the poorest through direct transfers (although local currency counterpart has supported government budget activities in agriculture, health, and education).

Although budget attribution (how USAID money is earmarked) supported a number of worthwhile programs, the fungibility of the budgetary funds makes it difficult to determine whether the availability of the food aid counterpart money actually represented additional net resources to the specified budget line items.

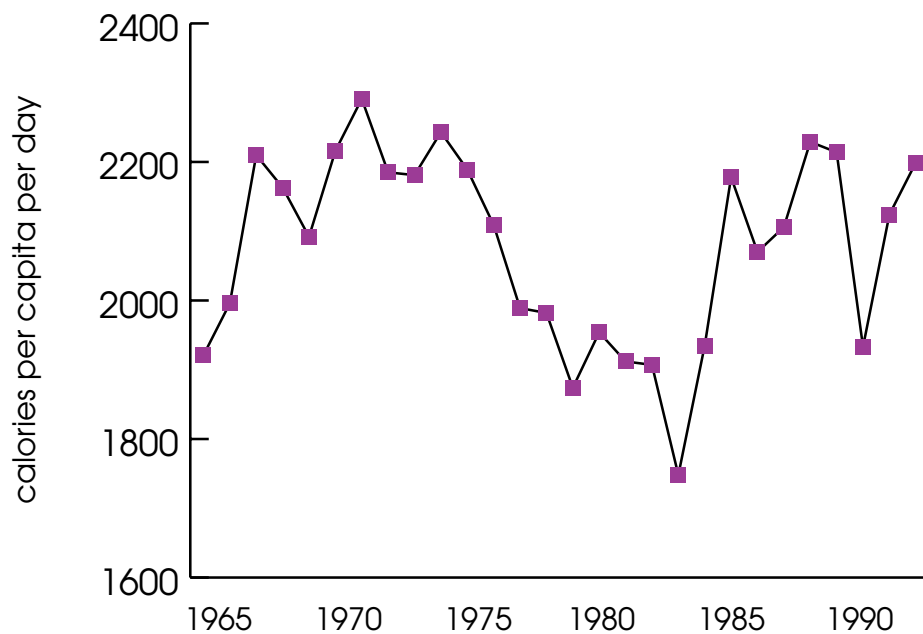
For these reasons it is difficult to find significant impact on the social sectors as a result of U.S. program food aid. The principal exception to this conclusion is the Title III program of 1991–94.

Effects of Title III Food Aid

The 1991–94 Food for Development Title III program has supported food security by spurring development of nontraditional agricultural exports as a way of increasing income opportunities of poor Ghanaians. Title III provided \$38.3 million of U.S. wheat, which was monetized by selling it at commercial prices in the Ghanaian market. The food fed people, and the local currency was used to support development projects.

The local currency program had three major components: 1) rehabilitating rural feeder roads in areas populated by smallholders where there were good prospects to further develop nontraditional agricultural exports; 2) helping NGOs promote increased production and marketing of these exports; and 3) developing an independent, private Ghanaian institute capable of undertaking policy research analysis.

Figure 4. Average Daily Calorie Availability, Ghana, 1965–92



Source: U.S. Department of Agriculture and UN Food and Agriculture Organization data.

The CDIE team did a detailed evaluation of the effect of the feeder roads and NGO projects, since they were an innovative approach to food security.

High transport costs are one of the greatest limiting factors affecting rural farmers. The new roads will allow lower cost marketing of products. The benefits are clear, and for the NGO projects, preliminary results are impressive. In particular, rural, community-based agricultural enterprise development has contributed to food security at the community and regional levels.

Rural beneficiaries have significantly increased their income, allowing them to purchase food supplies during the lean season, pay school fees, and improve family welfare. The community motivation, enthusiasm, and results achieved thus far all speak of sustainable impact of great magnitude for the participating households.

NGO projects have performed well and will undoubtedly continue to do so. They improved food security for 20,000 people—a solid achievement but a relatively minor one when compared with the total Ghanaian population of 17 million. Among them, one third are living below the poverty line.

Effects of Targeted Nutritional Feeding Programs

Title II targeted food provided to those at risk clearly achieved results. Health improvements

have been well documented at facilities supported by Title II. Only a small portion of the at-risk population, though, could be reached.

Ghanaian life expectancy and infant mortality have improved over the last 30 years, largely owing to increased vaccination rates. GDP

growth has improved over the last 13 years, but malnutrition rates have not improved. The Ministry of Health and UNICEF report that nutritional conditions are worse now than 20 and 30 years ago.

Using the 1986 and 1993 Demographic and Health Surveys to compare Ghana with the rest of sub-Saharan Africa, we find Ghana in the lower range for children who are stunted (that is, have low height for age) and second only to Niger for acute undernutrition.

Malnutrition is highest in northern Ghana and least pervasive in Accra and the other large cities. Stunting occurs in about one third of

all Ghanaian children (versus 2 percent among children in the reference population). This is about the same proportion as was measured in the 1970s.

The 1993–94 Demographic and Health Survey found that wasting (low weight for height), normally a signal of severe food deprivation, is found among nearly 10 percent of Ghanaian children. This is considerably higher than the norm, even for sub-Saharan African countries. Among women—particularly pregnant and lactating women—malnutrition from inadequate energy intake, protein deficiencies, and defi-

“[NGO DEVELOPMENT PROJECTS] IMPROVED FOOD SECURITY FOR 20,000 PEOPLE—A SOLID ACHIEVEMENT BUT A RELATIVELY MINOR ONE WHEN COMPARED WITH THE TOTAL GHANAIAN POPULATION OF 17 MILLION. AMONG THEM, ONE THIRD ARE LIVING BELOW THE POVERTY LINE.”

ciencies in virtually all of the more important micronutrients is a serious problem. It results, among other things, in a high prevalence of low-birth-weight babies and higher rates of maternal and infant death than should occur in a country such as Ghana.

The prevalence of micronutrient deficiencies is extremely high in all segments of the population but particularly in infants and young children and pregnant and lactating women. Vitamin-A deficiency, iron deficiency, and iodine deficiency are all high. These deficiencies affect health resiliency and resistance to infection and opportunistic disease. They also impair development of brain and glands and the autoimmune system of children.

Finally, the high-starch, low-protein diets common in many parts of the country at least seasonally (and throughout the year in parts of the plantain-, yam-, and cassava-consuming areas of the country) lead to particularly high prevalence of growth deficiencies in children and a high incidence of kwashiorkor—a severe stunting disease caused by chronic deficiency of protein and calories. In large part because of these nutritional deficiencies, under-5 mortality in northern Ghana is substantially higher than in the rest of the country.

While Title I and Title III aid has been episodic, Title II feeding programs have been operating continuously in Ghana for 37 years. The types of programs that have been funded have also remained remarkably consistent: preschool feeding, school feeding, food for work, primary health care, maternal and child health supplementary feeding, institutional feeding of extremely malnourished infants and young children.

One would expect, what with national economic conditions improving dramatically since 1983, nutrition would be similarly advanced. The data for the last five years show no clear

improvement. Ghana's malnutrition rates are much worse than other African countries at a similar income level. This raises an interesting question: Why haven't nutrition rates improved? One would expect malnutrition rates to improve with economic growth, but that has not happened during the recent 13 year economic boom.

The economic, political, social, and environmental factors that created the conditions causing food and nutrition insecurity in the first place—poverty and the lack of adequate public or private capacities to deal with these problems—have not been adequately addressed.

Other development efforts are needed to resolve pervasive malnutrition in Ghana. Included would be programs aimed at improving agricultural production, accelerating economic growth, reducing population growth, and putting in place a more responsive primary health care delivery system.

FOOD AID AND POLITICAL STABILITY

Political stability is often cited as a basic precondition for sustainable development. It provides a favorable environment of popular support, domestic tranquillity, and leadership continuity—an environment in which development can take root and thrive.

It also attracts foreign donors and investors, who value stability as an essential indicator of development potential. However, for most of its history, Ghana has lacked political stability. Ghanaians have lived under four constitutions since independence in 1957. Three democratically elected governments have fallen to military coups during this period, and from 1966 to 1992, no civilian government lasted for more than 27 months.

In December 1996 Ghana held its first elections under a democratically elected government. Until very recently, political stability has been elusive and episodic.

Food aid can have a direct effect on political stability when it prevents starvation and food riots or can be directly linked to political and economic reforms. In Ghana, however, food shortages have not led to civil unrest. Ghanaians generally do not blame the government for food shortages. Even during the devastating 1983 food crisis, people blamed the drought, a nationwide epidemic of fires, and the expulsion of Ghanaians from Nigeria—but not the government.

For a number of reasons, including a lack of organizing leadership, Ghanaians do not take to the streets or attack the government when food is in extremely short supply.

Although there is no evidence of direct effects of food aid on political stability, there is evidence of *indirect* effects—where food aid is part of an “enabling package.”

In the government, NGO community, and private sector, it is generally recognized that food aid played an important role in policy reform. Particularly in the last 12 years, food aid has been part of a comprehensive resource package that has stabilized and liberalized the economy.

There has also been a growing recognition that democracy is taking hold. People see improvements in the community and their own individual conditions.

While they still have many complaints, most people give the government credit for the recent prosperity and want to continue with economic and political liberalization. From that perspective, food aid indeed contributed to political stability.

FOOD AID AND EQUITY

U.S. legislation requires USAID food aid to go toward improving food security in poor, food-insecure countries. To accomplish that task in Ghana, it is essential that the factors causing insecurity in food and nutrition be identified, that those suffering the consequences of these factors be targeted for assistance, and that the most effective means for using food aid resources be initiated—often in combination with nonfood resources.

Food and nutrition insecurity in Ghana is widespread. It is rooted in pervasive poverty, low labor productivity, low agricultural productivity, transportation and marketing inefficiencies, poor access to health services, and low rates of education, particularly among women, to name just some of the more obvious indicators.

A considerable portion of the growth achieved during the 1983–92 economic boom was, according to the Ghanaian Institute of Economic Affairs, in the services sector rather than in increased production of goods. In addition, since population growth rates have exceeded agricultural growth rates, per capita food production has been decreasing.

The people of the three northern regions are worse off than those in the southern regions. In addition, poverty studies have confirmed that women, who are responsible for so much of the country’s agricultural output and value added in agriculture, are at a distinct disadvantage to men in income earned. Women therefore bear a disproportionate share of the burden of being poor.

With regard to the equitable allocation of government spending on social sectors, it has been found that the bottom quarter of the population received about 16 percent of the value of spending on education and only 12 percent of spending on health. On a per capita basis,

urban Ghanaians received 50 percent more government spending on their education than did rural Ghanaians. For every cedi spent on health for a person in rural Ghana, 3 cedis were spent on health services for the urban dweller.

These are only a few signs of the wide disparities between the very poor in Ghana and those who are (at least by comparison) considerably better off, as measured by assets, access, and opportunity. The former group are primarily northern and rural, and women more often than men. The latter are primarily southern and urban, and men more often than women.

Title I and Title III assistance provided after 1983 helped the poor by supporting key policy reforms. The policy changes improved Ghana's economic efficiency and helped increase economic growth. The poor benefited as Ghana achieved 10 years of strong economic growth.

The reforms undertook to eliminate controls, restrictions, and subsidies that had generally favored the formal sector, urban areas, and higher income groups. With the PL 480-supported reforms, benefits shifted in favor of those who lived in rural areas, were poor, and worked in the informal sector.

The NGOs that used Title II (and now Title III) resources, have for quite a long time concentrated their efforts on the poorer population groups, predominately in the north. Most NGO programs have operated at the community level in rural areas. They have sought to improve access to health and education services, to add value to agricultural production, or to improve food production and use.

Title II food that was monetized increased the ability of NGOs to deliver measurable and apparently sustainable improvements in income-

earning opportunities. Title III support has increased the income opportunities of poor farmers and artisans producing nontraditional exports.

All these programs have made special efforts to ensure that women—as much as, or more than, men—were the target beneficiaries. In the case of the Catholic Relief Services school-feeding program, innovation gave an old-style humanitarian approach new life. Program staff experimented with ways to increase attendance rates of female primary school students by monitoring the effectiveness of providing a take-home ration.

In the case of the projects managed by TechnoServe and the Adventist Development and Relief Agency, the evaluation team verified that women were participating every bit as much as men in the farmers' associations and in the increased returns accruing to the member households. The craftspeople involved in the Adventist program were as likely to be women as men, and their returns per worker were the same.

As noted earlier, the Rural Feeder Roads Program often served to link disconnected communities to the national economy. Many of those who benefit are the women traders who move from their home villages to neighboring market centers to sell their agricultural and household products.

There is little doubt these roads benefit the rural poor, men and women alike. These benefits will continue only if the roads are sufficiently maintained over the long term.

Another equity aspect of these NGO programs is evidence of much greater community participation in decision-making. This participation has been fostered by the intermediary organizations' using food aid for community-level development activities.

LESSONS LEARNED

1. PL-480 Title I and III food aid is a highly flexible development tool, representing substantial resources that can support policy reforms.

It can be quickly turned on to support economic reform or political change and can just as quickly be turned off. With the end of Nkrumah's socialism in 1965 and a move to liberalize the economy, Title I went from nothing to more than \$10 million a year and then, as conditions soured, back to nothing in 1973. In 1979, after the Rawlings revolution, it went from zero to more than \$10 million and again back to zero in 1983 when reforms were abandoned.

PL 480 was provided again in 1984 when the government launched a new package of economic reforms. In 1988, as the government undertook major economic reforms, Title I food aid helped ease the pain of major economic and social adjustments as part of Ghana's structural adjustment program.

In each of these crises food was in short supply, the new reform-minded government was hesitant, and U.S. assistance helped support the transition. In particular, over the last 10 years, food resources were an important part of USAID's total policy reform package. They helped the Agency become a major player and supported a successful policy reform effort. *Ghana demonstrates how a change in political or economic policies can be supported by large amounts of quick-disbursing food aid.*

"GHANAISANS NOW HAVE A TASTE FOR A BASIC FOOD COMMODITY THAT CAN'T BE GROWN IN-COUNTRY, AND THE COUNTRY LACKS THE FOREIGN EXCHANGE EARNINGS TO AFFORD ANYWHERE NEAR THE PRESENT LEVEL OF WHEAT IMPORTS."

2. Food aid commodities that do not compete directly with domestic crops do not create a disincentive to local production. Ghana cannot grow wheat, and wheat has a very low cross-elasticity of demand with domestically produced maize, cassava, and yams. Local rice is produced in northern Ghana, and until recently, high marketing and transport costs

made it expensive to ship to Accra. *In Ghana PL 480 wheat and rice have a minimal disincentive effect on local food crop production.*

3. Food aid can create a dependency or preference for an imported commodity, such as wheat. Ghanaian food-crop production consists mainly of cassava, yams and plantain, and small amount of grains (maize, sorghum, rice). Wheat is not grown in Ghana. In the last 30 years wheat has become an important part of the urban diet, particularly for middle- and higher-income families.

Wheat consumption was encouraged and expanded in part by wheat provided by aid donors.

In the absence of food aid, Ghana would import some wheat commercially, but not at current import levels. *Ghanaians now have a taste for a basic food commodity that can't be grown in-country, and the country lacks the foreign exchange earnings to afford anywhere near the present level of wheat imports.*

4. PL 480 Title II feeding programs are a "social safety net," or a holding action temporarily helping beneficiaries. In Ghana, for over 30 years, fortified foods helped children and mothers improve their health during the period

food was provided. But the programs could reach only a small percentage of those most at risk.

The Title II program is not expected to solve deficiencies in national nutritional standards. Other development efforts are needed to resolve pervasive malnutrition in Ghana. Included would be programs aimed at improving agricultural production, boosting economic growth, reducing population growth, and putting in place a more responsive delivery system for primary health care. *Those “other development efforts” were not adequate over the last 30 years to improve nutritional levels.*

5. More effort is needed in highly food-insecure recipient countries to investigate the relative importance of the factors causing the food deficit. It is not enough to make the case that a PL 480 program has fed hungry people. Almost all development programs have an initial positive effect as resources are transferred. But what happens next?

Effective and well-managed PL 480 programs have been operating in Ghana for more than 30 years, but Ghana still faces food insecurity. Additional efforts are needed to address the most serious factors impeding food security and to improve the capacity of organizations (public and private alike) to deal with the problems that threaten food security. *The causes of food and nutrition insecurity in both rural and urban areas of Ghana must be identified and effective programs put*

in place, programs specifically aimed at reducing or eliminating the most serious constraints to food security.

6. The change to increased Title II monetization and the increased availability of local currency resources from Title III have significantly boosted the ability of NGOs to increase the impact of programs on targeted beneficiary groups.

Increased flexibility in the use of food aid is clearly resulting in projects with greater positive food and nutritional impact at the community level.

For example, the ability of NGOs to build schools increased dramatically when they monetized the food aid—that is, converted from providing food for work to providing cash for materials. Eager to have use of the new school or road, the community contributed labor and skills. The NGO contributed building material bought from the commercial sale of Title II grain.

In the case of Catholic Relief Services, local currency has helped create village food banks in more than 40 communities. That has greatly increased availability of and access to food in the participating communities. *These innovative programs would not have been as effective if they had used food rather than PL 480-generated local currency.*

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